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GOVERNOR

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



MELANIE LOYZIM
COMMISSIONER

January 31, 2024

Sen. Joseph M. Baldacci, Senate Chair
Rep. Michele Meyer, House Chair
Members of the Committee on Health and Human Services
c/o Legislative Information Office
100 State House Station
Augusta, ME 04333-0100

RE: DEP Concerns and Possible Solutions to a Law Allowing Open-air Cremation

Dear Senator Baldacci, Representative Meyer, and Members of the Committee on Health and Human Services;

Please accept this letter as the Department of Environmental Protection's (DEP's) response to your June 21, 2023, letter to Commissioner Beal and me requesting our agencies review the potential approval of open-air cremation in Maine. As mentioned in your letter, this past legislative session the Health and Human Services Committee considered LD 584, *An Act to Permit the Conduct of Open Air Cremation at Designated Sites*, a bill that would have allowed the open-air cremation of human remains. Although the committee voted the bill "ought not to pass," the committee expressed interest during the work session in learning more about potential barriers to allowing open-air cremation, and, in your letter, requested more information about the concerns expressed by our agency representatives at the work session along with possible solutions to move forward with a bill of this nature in the future.

During the work session on LD 584, the DEP expressed concerns with the bill being in direct conflict with DEP's Chapter 102, *Open Burning*, a regulation administered by the DEP that has been in effect since January 31, 1972. Chapter 102, authorized by Title 38, Chapter 4: *Protection and Improvement of Air* (specifically 38 M.R.S. §585-A), has been amended several times since its original promulgation to maintain technical accuracy and assure consistency with federal regulations as well as to incorporate changes in Maine law, including forest fire prevention laws contained in Title 12, Chapter 807: *Forest Fire Control*, administered by the Department of Agriculture, Conservation and Forestry. These laws and regulations were adopted in order to protect human health and the environment, improve air quality, prevent public nuisance conditions, and to protect Maine's forests, public and private properties, and its citizens from out-of-control forest fires.

Chapter 102 has also been approved by the Environmental Protection Agency (EPA) as part of Maine's State Implementation Plan (SIP), which is a collection of regulations and documents used to implement, maintain, and enforce the National Ambient Air Quality Standards, or NAAQS, and to fulfill other requirements of the Clean Air Act such as Regional Haze control requirements. Any changes to regulations approved as part of a state's SIP must be approved by EPA, which may require a demonstration that the proposed changes will not cause backsliding in Maine's ability to maintain compliance with the NAAQS.

DEP concerns are identified in two main categories: 1) inconsistency with and/or violation of current state regulations; and 2) potential impacts on air quality, human health, odors, visible emissions, and other nuisance-type impacts.

Chapter 102, the DEP's *Open Burning* regulation, allows certain open burning activities with stipulated restrictions but prohibits all other open burning activities not specified as permissible under the regulation, either with or without a permit. Open-air cremation of human remains is not an activity specified under the current version of Chapter 102 or under 12 M.R.S. §9325 as being permissible, either with or without a permit. Despite open burning restrictions and requirements contained in Chapter 102, the DEP responds to many complaints each year related to the impacts of both permissible and prohibited open burning activities. These complaints include concerns about human health and nuisance-related impacts primarily from visible emissions (smoke), air pollution (including hazardous air pollutants), and odors that can come from open burning activities. Some of the nuisance-related impacts from open burning activities that Maine citizens complain about include the inability to enjoy their own properties or outdoor areas near locations where open burning activities are occurring, having to stay inside their homes with the windows closed to avoid impacts from open burning, and not being able to recreate due to concerns about health, unpleasant odors, and nuisance conditions.

The DEP is aware that open-air cremation is a preferred method in some cultures and religions of recognizing the end of someone's life or in celebrating their life. However, currently in the United States, the DEP is aware of only one location in one state (Colorado) where open-air cremation of human remains is allowed. By far, the two methods most commonly utilized in Maine and throughout the United States for the final disposition of human remains are cremation in licensed crematories designed and operated to minimize air emissions and burial in licensed cemeteries.

In looking into potential impacts from open-air cremation, we reached out to the Colorado Department of Public Health and Environment (CDPHE) regarding open-air cremations conducted there. CDPHE currently has only one facility, an organization called Crestone End of Life Project, to which they issue an open burn permit on an annual basis that allows up to nine open-air cremations per year. According to CDPHE, the facility is located in a very rural area with no nearby residences or businesses. The facility utilizes an open-air pyre designed to minimize excess smoke emissions, and the CDPHE has not received any complaints about smoke or odor in the 16 years of operation. Colorado has no specific acreage or property setback requirements. Attached is a copy of the open burn permit the CDPHE issues to the facility each year. Depending on the potential emissions from any proposed open-air cremation facility in Maine, an air emission license may be required under Maine's Chapter 115, *Major and Minor Source Air Emission License Regulation*, which would require a determination of the best available control technology (BACT) requirements for such a facility.

In our consideration of possible solutions that could help to mitigate the impacts of open-air cremation activities on human health and the environment and reduce concerns about potential nuisance impacts, the DEP considered the possibility of requiring some sort of afterburner control technology similar to the afterburner control technology used by licensed crematories in the State of Maine to reduce emissions of particulate matter and other pollutants that can contribute to visible emissions (smoke), odors, and other nuisance conditions. The DEP is not aware that any such device exists or would be adaptable for use with open-air cremation or whether it would fundamentally change the experience advocates of open-air cremation desire, but it is certainly worth further investigation and consideration during the development

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of any future legislation to be considered by the Health and Human Services Committee. Challenges in designing and operating such a device to work in conjunction with open-air cremation would include designing it to collect and treat enough of the emissions from such an activity to sufficiently reduce the potential health and nuisance impacts while maintaining the overall experience that most participants desire. Such a device would need to be connected to a relatively clean-burning fuel source, such as propane or natural gas, and would need to have access to electric service to power any burners, blowers, or fans associated with the afterburner device. Effective use of such a device might enable open-air cremation to be conducted on properties of a smaller size than the 20+ acre sites specified in LD 584 without creating a nuisance or adverse health impact on neighboring properties.

Another potential solution would be requiring that open-air cremation activities only be permitted on large enough properties, with sufficient set-back requirements from property lines such that any impact to human health and the environment beyond the property lines would be minimized. The exact property size and set-back requirements needed to achieve this outcome is difficult to predict, as weather conditions and the tolerance levels of neighbors bordering such properties can play a significant role in predicting the potential impacts of and responses to any open burning activity. A trial or trials of such an activity may be necessary in order to inform the establishment of appropriate requirements and restrictions for future legislation.

In summary, at a minimum 12 M.R.S. §9325 and the DEP's Chapter 102 would need to be amended to legalize open-air cremation in Maine and establish any necessary criteria for approval of open-air cremation facilities. Impacts to air quality, human and environmental health considerations, and possible nuisance-related consequences (odor, visible emissions, etc.) of open-air cremations would need to be estimated and addressed in accordance with federal regulations and individual and community concerns. If the Committee wishes to pursue legislation to this effect, DEP staff can be available to provide additional information.

Sincerely,



Jeffrey S. Crawford, Director
Bureau of Air Quality

